|                | Document             | ID  | 1   | S O I H U W           | Issu<br>e<br>Date | Pa<br>ge<br>s | Title   | Current           |  |
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| - <del>-</del> | บร <i>า</i> ธ์052763 | ЗА  | [3] | U<br>S<br>P<br>A<br>T | 1991<br>1001      | 13            | Optical system with two subsystems separately correcting odd aberrations and together correcting even aberrations | :35 <b>9</b> /355 | 359/633  |
| 2              | us 5692329           | · A |     | U<br>S<br>P<br>A<br>T | 1997<br>0107      | 1.8           | Catadioptric optical<br>system  |                   | 359/365;<br>359/366;<br>;<br>559/447<br>;<br>359/737;<br>359/858 |
| 3              | us <b>V</b> 5220454  | A   |     | U<br>S<br>P<br>A      | 1993<br>0615      | 15            | Cata-dioptric<br>reduction projection<br>optical system   | 359/487           | 359/495<br>;<br>359/707<br>;<br>359/732                          |
| ન              | บร <b>\</b> ≨808905  | Α   |     | U<br>S<br>P<br>A<br>T | 1998<br>0915      | 25            | Exposure apparatus having catadioptric projection optical system  | 359/651           | 355/53;<br>359/631   |
| 5              | us (5/689377         | ' A |     | U<br>S<br>P<br>A<br>T | 1997<br>1118      | 20            | Catadioptric optical system and exposure apparatus having the same  | 359/727           | 359/732<br>;<br>359/733  |
| ģ              | USV 5537260          | ) A |     | U<br>S<br>P<br>A<br>T | 1996<br>0716      | 19            | Catadioptric optical reduction system with high numerical aperture  | 359/727           | 359, 631   |
| 7              | บร <b>∨ร</b> ์241423 | : A | •   | U<br>S<br>P<br>A<br>T | 1993<br>0831      |               | High resolution<br>reduction<br>catadioptric relay<br>lens  | 359/727           | 359/720<br>;<br>359/726  |
| 8              | U <b>€</b> /5089913  | A   |     | U<br>S<br>F<br>A<br>T | 1992<br>0218      |               | High resolution<br>reduction<br>catadioptric relay<br>lens  | 359/727           |  |

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| 9  | US <b>U</b> 566867: | 3 A | · | Τ                     | 1997<br>0916      | 47 | Catadioptric<br>reduction projection<br>optical system                                  |   | 359/364<br>;<br>359/366<br>;<br>359/707                       |
| 10 | US <b>2</b> 36505:  | l A |   | USPAT                 | 1994 .<br>1115    | 14 | Projection emposure apparatus   | 250/201   | 250 548   |
| 11 | US\ <b>8</b> 591958 | E A |   | U<br>S<br>P<br>A<br>T | 1997<br>0107      | 27 | Scanning exposure<br>method and apparatus   | 250,1205  | 251 201<br>.1;<br>355.71;<br>356.400                          |
| 12 | us <b>U</b> 66627:  | 3 A |   | U<br>S<br>P<br>A<br>T | 1987<br>0519      | 29 | Automatic<br>magnification<br>correcting system in<br>a projection optical<br>apparatus | 353/101   | 383 132<br>;<br>388 55  |
| 13 | /<br>US\≸691∂02     | 2 A |   | USFAT                 | 1997<br>1125      | 38 | Catadioptric optical system and exposure apparatus having the same                      |   | 255/43;<br>355/60;<br>355/77;<br>359/366<br>;<br>359/727      |
| 14 | US \$534370         | 5 A |   | U<br>S<br>P<br>A<br>T | 1996<br>0709      | 22 | Scanning emposure apparatus   | ()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>( | 359 710<br>353 102<br>;<br>355,67;<br>359,589<br>;<br>359,622 |
| 15 | US \\$194890        | A.  |   | U<br>S<br>F<br>A<br>T | 1993:<br>0316     | 13 | Exposure method and projection exposure apparatus                                       | 388,53<br>:   | 355/53  |
| 16 | US\ <b>5</b> 333035 | - A |   | U<br>S<br>F<br>A<br>T | 1994<br>0726      | 17 | Exposing method   | 355,77  | .355/53   |

|     | Document            | ID  | Source                | Date         | ge | Title   | Current<br>OR | Current<br>XRef  |
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| · 7 | US <b>2</b> 50558   | 4 A | U                     |              | 36 | Projection scanning<br>exposure apparatus<br>with synchronous<br>mask/wafer alignment<br>system |               | (250 '549<br> ;<br> 255 '53;<br> 356  509  |
| 1 ō | US <b>(4</b> 97431  | 9 A | USPAT                 | 1990<br>1204 | 27 | Illuminating device   | 359 (204      | 353. 122<br>;<br>354 1236<br>;<br>354 1416<br>;<br>363.1166  |
| 19  | u <b>s</b> 541455   | 1 A | USPAT                 | 1995<br>0509 | 37 | Afocal optical system<br>and multibeam<br>recording apparatus<br>comprising the same            | 359./205      | 259 296<br>; 359 296<br>; 359 296<br>; 359 366<br>; 359 364<br>; 359 364<br>; 359 364<br>; 359 744 |
| 20  | us <b>\</b> 477047  | 7 A | U<br>S<br>P<br>A<br>T | 1988<br>0913 | 5  | Lens usable in the<br>ultraviolet   | 359, 355      | 359,754<br>;<br>359,763  |
| 21  | usr 5,594241        | 1 A | U<br>S<br>P<br>A<br>T | 1997<br>1202 | 18 | Catadioptric reduction projection optical system and exposure apparatus employing the same      | 359/364       | 359/727  |
| 22  | US (562326)         | 3 A | U<br>S<br>P<br>A<br>T | 1994<br>0621 | 9  | Off-axis catadioptric<br>projection system  | 359/366       | 359/364<br>;<br>359,365  |
| 20  | US <b>(3</b> 61202) | 8 A | U<br>S<br>P<br>A<br>T | 1989<br>0314 | 19 | Reflection type reduction optical system  | 359, 366      | 350/731  |

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| (s) | u <b>e/</b> 4701035 | A | U<br>S<br>P<br>A<br>T | 1987<br>1020      | 21     | Reflection optical system   | 359/366       |  |
| 25  | US <b>4</b> 535777  | A | U<br>S<br>P<br>A<br>T | 1987<br>0811      | 8      | Reflection and refraction optical system  | 3591366       | 359 '731   |
| 23  | ua /5212593         | A | U<br>S<br>P<br>A<br>T | 1993<br>0518      | 5      | Broad band optical reduction system using matched multiple refractive element materials | 359/487       | 359 495<br>;<br>359 727<br>;<br>359 728<br>;<br>359,732                                      |
| 27  | us (5253110         | Α | U S P A T             | 1993<br>1012      | 165    | Illumination optical<br>arrangement   | 359/619       | 359/370;<br>359/370;<br>359/386;<br>359/386;<br>359/386;<br>359/386;<br>359/386;<br>359/386; |
| 60  | /<br>US\5706137     | А | U<br>S<br>P<br>A      | 1998<br>0106      | $\sim$ | Wide field of view imaging system   | 359,1633      | 359/364<br>;<br>359 630<br>;<br>359 631  |
| 29  | us\ <b>5</b> 406415 | A | U<br>S<br>P<br>A      | 1995<br>0411      |        | Imaging system for a<br>head-mounted display  | 359,1633      | 348 7;<br>359,364<br>;<br>359/631  |

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| 30       | US \$583696              | А  |   | U<br>S<br>P<br>A<br>T      | 1996<br>1210      | 14 | Reflectiin and refraction optical system and projection exposure apparatus using the same | 359/637       | 359 727<br>;<br>359 729 |
| 31       | us ( <del>2</del> 448403 | А  |   | U<br>S<br>P<br>A<br>T      | 1995<br>0905      |    | Frojection lens<br>system   | 359 651       | 359 630<br>;<br>359 679 |
| 32       | UZ 4953960               | A  |   | U<br>S<br>P<br>A<br>T      | 1990<br>0904      |    | Optical reduction system  | 359 663       | 252 726                 |
| 33       | US <b>√4</b> 592625      | A  |   | U<br>S<br>P<br>A<br>T      | 1986<br>0603      | -  | Double-conjugate<br>maintaining optical<br>system   | 359 663       | 35ái 401                |
| 34       | us (3,69713.6            | А  |   | U<br>S<br>F<br>A<br>T      | 1975<br>0729      | -  | Frejection lens for<br>mask pattern printing  | 359, 674      | 359-754<br>;<br>359/764 |
| <u>ق</u> | us <b>\</b> \$260832     | A  |   | U<br>S<br>P<br>A<br>T      | 1993 -<br>1109    |    | Frojection lens<br>system   | 3597679       | 352 649                 |
| 36       | us 4386828               | A  |   | U<br>S<br>P<br>A<br>T      | 1983<br>0607      |    | Telecentric illumination system   | 359/687       | 359,380<br>;<br>359/603 |
| 37       | US <b> </b> ∮336066      | Α. |   | U<br>S<br>P<br>A           | 1997<br>0603      | 63 | Optical apparatus   | 359, 726      | 359,629<br>;<br>359,727 |

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| 3.8  | us <b>\</b> \$742436       | δ A |   | тт                    | 1998<br>0421      |    | Maximum aperture<br>catadioptric<br>reduction objective<br>for microlithography | 359 1727      | 359 631<br>;<br>359 663<br>;<br>359 732<br>;<br>359 739 |
| 3.03 | y<br>us <b>(3</b> /4022 61 | 7 A |   | U<br>S<br>F<br>A<br>T | 1995<br>0328      |    | Catadioptric<br>reduction objective   | 359 727       | 353-732   |
| 4 (1 | /<br>US ₩779366            | δ A |   | U<br>S<br>F<br>A      | 1988<br>1025      |    | Single mirror<br>projection optical<br>system                                   |               | 359 355<br>;<br>359 754                                 |
| 41   | us (\$515201               | 7 A |   | U<br>S<br>F<br>A      | 1996<br>0507      |    | Multiple mirror<br>catadioptric optical<br>system                               | 359, 731      |   |
| 42   | ប្ <b>ទ</b> ុំ៤៩០១48       | 3 A |   | U<br>S<br>F<br>A      | 1978<br>0301      |    | Ultra-high resolution<br>reducing lens system                                   | 359/750       | 359 751<br>;<br>359 755                                 |
| 43   | us <b>L</b> \$955880       | 3 A |   | U<br>S<br>P<br>A<br>T | 1976<br>0511      |    | Wide angle<br>photographic lens   | 359/752       |   |
| 44   | us <b>V</b> 2003118        | 5 A |   | 1                     | 1975<br>0930      |    | Lens with high<br>resolving power but<br>relatively small<br>reduction ratio    | 359/754       |   |
| 45   | US 350496                  | 1 A |   | U<br>SFA<br>T         | 1970<br>0407      |    | TEXT NOT AVAILABLE  | 359.754       | 359, 757  |
| 46   | US 373721                  | 5 A |   | U<br>S<br>F<br>A<br>T | 1973<br>0605      |    | SIK ELEMENT UNIT<br>MAGNIFICATION LENS  | 359, 760      |   |

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| 47 | US <b>(</b> 4851978 A [ | U<br>S<br>P<br>A<br>T | 1989<br>0725      |    | Illumination device<br>using a laser | 362/268       | 255,67;<br>259,205<br>;<br>259,213<br>;<br>359,505<br>;<br>359,619<br>;<br>362/259 |
| 48 | US <b>V</b> 4497015 A [ | U<br>S<br>P<br>A<br>T | . *               |    | Light illumination<br>device         | 362/268       | 353/33;<br>353/93;<br>353/67;<br>359/621   |